



"Our Home, our Country, and our Brother Man."

SHADE TREES OF MAINE.

Although we cannot boast of magnolias, nor tulip trees among forest trees indigenous to Maine, we have, nevertheless, some that are as lofty and as rich in leaf, if not in flower, as any in the world; and which for cleanliness, extent of branches, and density of foliage, (through which the forest rays of the sun cannot ever creep) are not surpassed.

Our elms, our maples, oaks, beeches, ash, bass, butternut, and many others, constitute the finest of shade trees, when suitably located and properly taken care of. Among the great numbers which are natives of our forests, the elm and the rock-maple are most usually selected for setting out around buildings, and along the margin of streets, for ornament and shade. And noble trees they are, too. Each large, lofty and durable, and each with distinct characteristics, and both great favorites. We propose, in some future numbers, to give a descriptive list of such natives as are well adapted to shade and ornamental purposes. We wish we had appropriate cuts, illustrative of their distinctive characters, but such would be more expensive than we can at present afford. Some farmers are opposed to having trees in their fields and pastures, and can never rest easy until they have laid the axe at the root of the tree, and forthwith it is hewn down. But if such a man would inquire of his horse, or his ox, or his sheep, they would tell him, in clear and unequivocal language, that it is a benefit to have a suitable number of such sheltering trees in such places.

Look at them when the sultry sun of summer pours down a scorching flood of heat upon the earth. They at once betake themselves to the shades which such trees make. Look at them when the rain and the storms of summer come driving in showers upon them. They then fly to them for shelter and protection from their peltings. The Michigan Farmer, in a very good article upon shade trees, says: "Every field on the farm should be well supplied with shade trees. No animal can take on fat, or yield much milk, which is exposed, day after day, in the open fields, to a scorching summer sun. Horses suffer extremely in such situations, and were it not for the shelter afforded by the fences, sheep would die."

A little attention to these things would enable a farmer to set out, or sometimes obtain them by merely suffering them to grow naturally in such places, where there would, on account of rocks or ravines, be less feed than in other parts of the fields or pastures, and thus the advantage of shade be secured, where little or no feed would have been obtained.

SALT YOUR DUNG HEAPS.

In many stables where horses are kept in the summer, and also around barns and in barn cellars, in the spring of the year, manure heaps will begin to ferment, or "heat," as some call it, and the ammonia begins to fly off. This is known by the peculiar pungent smell, well known to those who have noticed such things a little.

This state of things should be checked, for the ammonia is a very important ingredient in manures, and should be retained in them until applied to the earth or the crop. In order to do this, one of two very cheap articles may be applied. Common plaster of Paris, dusted over the heap occasionally, will absorb the ammonia as it arises, and keep it from flying off into the atmosphere, and being lost to its owner.

Common salt is another article which may be advantageously used. The following mode of applying it is laid down by some who have practiced the use of it. Dissolve four pounds of salt in two buckets of water, and pour it out to the manure heap through the nose of a water pot.

The theory or explanation of the action of the salt in this case is this:—Common salt is composed of muriatic acid and soda. The ammonia combines with the muriatic acid of the salt and forms muriate of ammonia, (sometimes called sal ammoniac.) This is not a gaseous, or volatile body, and of course settles down and remains in the manure heap, where you want to keep it until taken up by the growing crop.

The soda being separated from the muriatic acid, soon unites with the carbonic acid gas, (which is also liberated freely when manure ferments,) and thus is formed into carbonate of soda, and remains in the manure heap until taken up or made use of by the growing crop. In this very simple manner, you will be able to save the volatile parts of the manure, and add to its value.

POWER OF INSECTS.

An insect—a fly or a "bug"—is a very little thing, a weak, despicable thing—a single tooth of the hand will crush it, and yet it is powerful for good or for evil. You plant a tree,—an apple tree, for instance,—for years you dig about and cultivate it. It grows up a lovely, stately tree—spreads its branches freely abroad, and every year produces barrels of fruit. You look at it with pride, and exult in its size and strength. While you are looking at it with so much complacency, a little bug flies upon it, so small and insignificant that you hardly notice it. It deposits an egg in the bark—a worm hatches, in size hardly perceptible to the naked eye—it penetrates into the tree, and works its way as it increases in size further and further around the trunk, hidden, unseen, and yet, by little and little, winding its way around, and by another summer your tree is dead.

The ravages of insects upon fruit and forest trees are sometimes so extensively destructive as to exceed belief, when not seen and examined by your own eyes. Some thirty, or more, years ago, the pines and hemlocks in some sections of Maine became covered by a small worm which destroyed acres and acres of large and valuable

timber. There is no species of tree or vegetable that has not some enemy of an insect to attack and ultimately destroy it. The following from the Saco Union, shows that the oak, in some parts of York county, is liable to destruction by the attack of some of the weak, insignificant, but powerful insect tribes.

"Mr. John Lunt, of North Kennebunkport, has left at our office an oak bough, or we should rather say branch, which was cut off by an insect or worm, which seems to be making sad havoc with the forest trees. The limb is $\frac{3}{4}$ of an inch in diameter, and the wood where cut off is perfectly sound. Not far distant from its end there is a dead twig, in the centre of which is an aperture of perhaps a sixteenth of an inch in diameter, where the 'varmint' went in. Mr. Lunt says the ravages of this insect are very extensive, and not entirely confined to the oak."

FORMIDABLE LOSSES.

Every farmer who understands common arithmetic, may amuse and instruct himself with advantage by a few interesting calculations. Successful tillage, as every one knows, consists in three important particulars, viz: a good soil, its fertility made accessible, a monopoly of that fertility by the crop intended. A soil may consist of the most valuable ingredients, but if these are kept immersed in a subterranean basin of water, as in many undrained soils during every wet season, they are inaccessible to the plant as if encased in walls of masonry. A hard, unbroken soil is little better. But the greatest absurdity in farming is to expend five or ten thousand dollars in the purchase of land, some hundreds more in fitting it for prolific crops, and then permitting one-fourth, one-third, or even one-half of its costly value to be drawn out and destroyed by the growth of useless weeds.

We have known men who were exceedingly jealous of "their rights." Rather than be defrauded of a half dollar, they would rush into a lawsuit costing twenty times that sum. Rather than lose "the best end of the bargain," they would resort to a great many inconvenient and troublesome expedients. Rather than submit to have a neighbor's lawless hog dig a single meal of potatoes, they would incur perpetual resentment. But strange things have yet come to an end, for these are the very same men that submit with most admirable patience to the invasion and waste of thousands of elder bushes and burdock, tens of thousands of mullein and horse thistles, and a hundred thousand Canada thistles and red-root plants.

New calculations are about to propose, as above alluded to, are these: Let every land owner, whose fences are lined with a belt of elms, burdocks and briars, ascertain, by weighing, the precise amount of vegetable growth yielded by these plants on a square yard of land; multiplying by thirty will give him the weight on a square rod. Then let him make a fair estimate of the amount of land thus occupied along all the miles of his fence, and he may soon know how many tons of elder bushes, briars, and burdocks his costly land grows in a year. It would, of course, be quite as well for him to have this growth in clover, timothy, or Indian corn—but before throwing the calculation aside, let him ask himself if he would not feel somewhat indignant should his neighbor's cattle fall upon and devour an equal number of tons from his meadow or corn field? Now, cannot he contrive to get up a like amount of indignation at the weeds? The same kind of calculation may be applied on the same farm, to the Canada thistles, horse thistles, Johnswort, pig weeds, mulleins, mustard, and fox-tail grass, which grow in various degrees of denseness, broadcast over the fields. We cannot but think that on some farms it would present rather a startling result.

It would be an interesting inquiry to look into the actual losses sustained through the whole country by the growth of weeds. How many tons, on an average, are grown by each of the million farmers of the United States? Three-fifths—or ten? If the former only, the aggregate crop would be enough to load a continued train of farm wagons, three thousand miles long—or twenty thousand canal boats—or more than ten times all the whale ships belonging to the country—with this useless herbage. A single weed, the red root, has been estimated to have occasioned greater loss in some counties than if every dwelling house had been consumed by fire. Is not this subject one worthy of some considerable attention?

Now, there are two ways in which all this evil comes upon us. The first is by the increase of seeds—the second, the want of prompt destruction when the evil has once commenced. The increase by seed, under favorable circumstances, almost exceeds belief. We have counted the grains on a single moderate sized plant of chess, and found over three thousand. An equal increase the second year would produce nine millions; the third year, twenty-seven thousand millions; the fourth—but we will let some of our young arithmetical readers carry out the reckoning for ten years, and see if there is not enough seed by that time to turn the whole wheat crop of the globe into chess. A full grown, adult pig weed, will yield eight thousand seeds, which may increase in a few years to countless myriads, just because, as Prof. Lindley says, the cultivator was unwilling to make "a single flexure of his vertebral column," in extracting the first young weed from the soil. There are certain weeds, troublesome and costly in the highest degree, in some regions of country, which are entirely unknown to others—simply because no seeds have ever been deposited there. Then again there are other localities which were once plentifully infested, but where they have been completely eradicated, and not a single representative left. We could name several farmers, who have succeeded in eradicating from both soil and seed, the last vestige of that insidious intruder, chess; and several others who by vigilance and industry, had exceedingly lessened the annual weeding of red-root. Such examples are worthy of imitation, and at this time of year, when weeds are preparing to form their millions of germs for increase, we hope the subject may receive the special attention of cultivators.

[Albany Cultivator.]

Concealed buds may be started by making a niche immediately above them with a knife. This is a good way to form new limbs.

ROTATION OF OUR FOREST TREES.

We desire here to allude to a subject which has an important indirect bearing, at least, on the subject of agriculture, because it illustrates the great rotation principle, in the vegetable kingdom.

The forests in many parts of our country are about changing their tenants. In our vicinity, the great burden of our forest timber, as found here by the first settlers, was white oak. This is about giving place to the black oak, especially on elevated ridges, or where the land is inclined to be sandy. The venerable white oaks, with diameters from thirty to fifty inches, are, in most instances, surrounded by a crop of sapling black oaks, leaving beneath their shade nothing to perpetuate their kind.

If we are not mistaken in our judgment, the cause of this is not very hard to define. It is a matter well understood, by those who have given any attention to the subject, that there is, in every portion of the earth, certain elements or principles, which go into the composition of vegetable matter. That any particular species of vegetable will sooner or later consume out of the earth that which is peculiar to its nature, after which that particular kind will not prosper until the principle which nourishes it is reproduced, either by resting the land, or by special manuring.

Some vegetables exhaust from the soil their peculiar food more rapidly than others. Flax, for instance. It is used to be said by old farmers, that a piece of ground that had borne a crop of flax would not bear another for seven years.

It is on this principle that the rotation in crops is predicated; a doctrine, for the knowledge of which we are indebted to our experimental farmers, and to book reading. This principle, of the rotation in crops, is probably as well understood, at this time, as anything connected with the science of agriculture. And this is the principle, no doubt, which explains why it is that the white oak is leaving our forests and giving place to the black oak timber. It has been so long the undisputed tenant of our woods, that, having exhausted from the soil that aliment upon which it lives, it retires, in the order of Providence, to give place to a successor whose special food yet remains in rich abundance in the earth.

Every farmer who has attentively observed the progress of vegetation in his own lane and yard, must have noticed the operation of this principle. The order of our grounds is something like this:—the first occupant was the smart weed;—then the dock fennel, and now the yarrow is coming. As soon as the aliment was exhausted that nourished each particular kind, it died for the want of something to live on, and was succeeded by another species, and perhaps mere accident determined the successor.

Since our attention has been directed to this transition in the forest, we have made the subject a matter of inquiry, when favored with the company of men who would be likely to notice things of this kind.

Having been referred, with reference to this matter, to Joshua Copehwaite, of Medford, N. J., where they have timber lands which have frequently been cut off for the supply of wood to the Philadelphia market, we wrote to that gentleman upon the subject, and have received his answer, from which we take the following extract:—"If the pine is cut off the oak will grow, and if the oak is cut off the pine will grow."

At the late State Fair, at Cincinnati, we met with an intelligent fruit grower from Illinois, to whom we mentioned this forest subject, and found that he had noticed this change going on among the trees of the wood. At our request he pencilled down and handed us the following statement. He was formerly a resident of Ohio, and his remarks refer to this State:—

"I have long been convinced that two generations of the same kind of forest trees seldom or never succeed each other on the same tract of land. A crop of trees, nearly all of one kind, which last from two to four and sometimes to five centuries, seems to exhaust the soil of that particular nutrient which is adapted to that sort, and at the same time prepares it for some other.

"Instances: there is the track of an old tornado, which passed through Delaware county, the north-east corner of Licking, and finally into the south-east part of Knox, which, upon counting the annuals on a number of stumps, I ascertained to have occurred about the year 1740. In the track of this tornado, the timber is essentially different from the older timber on each side of it. Again, most of the west part of Knox county was, thirty years ago, when I first became acquainted with it, covered with a growth of beech, slightly mixed with other timber. That this growth had succeeded an oak forest, was quite plain, from the fact that oak trees of enormous size, in a state of decay, were to be found in every direction."

The foregoing extract is taken from the Agricultural Report of the State of Ohio, a large volume, for which we are indebted to our respected friend, C. Springer, of O., who directed our attention to this subject, which is contained in a letter to E. Harkness, of Muskingum County.

We have noticed, and we have heard many farmers remark, that white oak and maple came up after pines were cut down. We have seen this in the pine forests in the counties of Albany and Oneida in this State, but we have never examined the subject so attentively as to perceive the existence of a certain law in these changes. The subject, we believe, demands further investigation, for it is one of great interest to every class of our citizens. [Scientific American.]

OAT STRAW. A writer in a June number of the Farm Journal, gives his experience of the injury of oat straw, when fed to milk cows. He states that in the early part of June his cows ate of the oat straw litter, and although fresh, their milk immediately failed, and was not restored until the cattle were entirely excluded from the straw. This, we believe, accords with the universal opinion among farmers, of the deleterious effects of this straw upon cows in milk; but it is well enough to mention the fact, in order that, through inattention, others may not suffer from negligently allowing their cattle to feed upon it. [Germantown Telegraph.]

Never be idle. If your hands cannot be fully employed, attend to the cultivation of your mind.

WHAT ARE TREES MADE OF.

If we were to take up a handful of soil and examine it under the microscope, we should probably find it to contain a number of fragments of wood, small broken pieces of branches, or leaves, or other parts of the tree. If we could examine it chemically, we should find that most strikingly that it was nearly the same as wood in its composition. Perhaps, then, it may be said, the young plant obtains its food from the earth in which it grows. The following experiment will show whether this conjecture is likely to be correct or not. Two hundred pounds of earth were dried in an oven, and afterwards put into a large earthen vessel; the earth was then moistened with rain water, and a willow tree weighing five pounds, was planted therein. During the space of five years, the earth was carefully watered with rain water. The willow grew and flourished, and to prevent the earth being mixed with fresh earth, being blown upon it by winds, it was covered with a metal plate full of very minute holes, which would exclude everything but air from getting access to the earth below it. After growing in the earth for five years, the tree was removed, and on being weighed, was found to have gained one hundred and sixty-four pounds. And this estimate did not include the weight of the leaves or dead branches which in five years, fell from the tree.

Now came the application of the test. Was all this obtained from the earth? It had not sensibly diminished; but in order to make the result conclusive, it was again dried in an oven and put in the balance. Astonishing was the result—the earth weighed only two ounces less than it did when the willow was first planted in it! The tree had gained one hundred and sixty-four pounds. Manifestly, then, the wood thus gained in the space of time was not obtained from the earth; we are therefore obliged to repeat our question, "Where does the wood come from?" We are left with only two alternatives; the water with which it was refreshed, or the air in which it lived. It can be clearly shown that it was not due to the water; we are consequently unable to resist the perplexing and wonderful conclusion—it was derived from the air.

Can it be? Were those great ocean spaces of wood, which are as old as man's introduction into Eden, and wave in their vast and solitary luxuriance over the fertile hills and plains of South America, were all these obtained from the thin air? Were the particles which unite to form our battle ships, Old England's walls of wood, ever borne the world about, not only on wings of air themselves? Was the firm table on which I write, the chair on which I rest, the solid floor on which I dwell, once in a form which I could not as much as lay my finger on or grasp in my hand? Wonderful truth! this is air. [English Paper.]

PRACTICAL HINTS.

ROADS. One of the most important improvements after putting up fences, is making of good roads on the farm. As a railroad in some new part of the country develops its resources and brings all sorts of improvements, so a good road to any part of the farm, adds as much to the value of that part as it would remove it nearer to the barnyard. Count up how many times you drive a team to certain field, half a mile from your barn, always loaded one way or the other, perhaps over a hill, at least through one or more mud holes; and you may estimate somewhat the value of this improvement. You suffer inconvenience enough, in one single harvest, in the up-setting or falling off your loaded grain, hindering your work, and making all hands cross, to pay for grading and smoothing half the way. Then think of the many loads of manure, which are, or should be drawn to that field, and how much your team would be relieved, and your work facilitated by a good hard bridge over that brook, instead of sinking your cart into the mud every time you have to pass it.

I might add a word about bars and gates.—There is no surer indication of a weak farmer, than a perpendicular bar post or a swing gate. I must say, I have a particular antipathy to a dragging gate. I think you will find a few days of labor at odd spells, in repairing roads through the farm, will pay ten per cent. interest.

DRY WALKS. Another matter worthy your attention is a dry and clean walk to your barn, and other out buildings. You may think this a small matter but there are few things in which the every day comfort of yourself and family is more concerned, than this. Look at that muddy hole by the gate between the house and barn, which must be waded an hundred times a week, through all the season. The house is painted, and all the buildings and fences are in good style, but whenever you walk about the yards in wet weather, you meet with filth which is in strange contrast with the style of the buildings, and which appears all the worse for the contrast. Good taste is always consistent. Nice buildings, pleasant rooms, good carpets, and other handsome furniture are in contradiction to the walks out to the doors, which lead the boots with clay at every step. If you have no gravel bar or flag stones, make a plank road. [Poughkeepsie Telegraph.]

BURNED BONES FOR THE PEAR TREE.

The following is from the Horticulturist, and we do not doubt that bone-black is useful for the pear tree, but not for the reasons which the following article supposes. Unless the bone-black be first treated by sulphuric acid, it is insoluble in the soil, and will not yield up its phosphate of lime. A small portion of divided carbon, however, which results from the gelatine, is valuable, from its power to receive ammonia from the atmosphere. Wood charcoal dust for this purpose, cost. The phosphate of lime contained in burned bones, has sufficient silica in combination to undergo partial vitrification, and is thus protected from being decomposed in the soil. The slightest addition of acids, however, disorganizes this mixture and renders it available. We suppose the same facts will probably apply to the native phosphate now found in New Jersey, and at Lake Champlain, and that they will only prove valuable when first treated by sulphuric acid, and their value would be materially increased by additions of sulphate of ammonia, as in the manufacture of the Improved Super-phosphate of Lime. [Ed. Working Farmer.]

The Bostonians are experimenting with Phillips' Fire Annihilators.

"HASTE MAKES WASTE."

We always feel like preaching a sermon from this text—when we perambulate the market in search of butter. In all the stalls devoted to the sale of this necessary of New England life it is very seldom that a really good article can be found—but there is every variety of poor butter in abundance. Now and then a firkin may be found put up in rather a tolerable shape such as would almost pass current with those who know what good butter is, but it is an exception to the general rule. On the other hand, there are hundreds of tons of butter sold every year in our market at half the price it would bring were a little labor bestowed upon it by housewives in the country. In no article do our farmers so greatly mistake their true interests as in sending poor butter to market. We tasted a lot yesterday which was offered at ten cents a pound because it was rancid—but which would have brought double that price readily had it been properly cared for when it was made. The process of making butter is simple and easy—and the only difference between good and bad butter, in nine cases out of ten, is just the difference in the labor bestowed in working out the buttermilk. If the butter be thoroughly worked in a cool place, it assumes something of the consistency of wax, and will keep for years without becoming rancid. Yet not one firkin in a hundred sent to market can be cut without the buttermilk following the knife.

The English dairy women understand these things better. They never throw away one half the rightful price of their dairy products in order to spare their elbows. You seldom see any poor butter in English market towns. Not only is all the buttermilk excluded—but the butter receives a very rich and mellow flavor by reason of slightly sealing the milk before it is set away in pans. This process costs very little labor—and, in the warm season particularly, it greatly increases the quantity as well as the quality of the cream. We hope that at no distant period the English mode will be universally adopted in this country. Whenever it is, the profits of our national industry will be greatly enhanced, and the hills and valleys of New England will be converted into almost universal dairy farms. Few branches of industry are more profitable than the dairy, when it is rightly understood.

The remark that applies to butter, applies also to two thirds of the cheese manufactured, and one half at least of the hams cured in this country. We have perambulated the whole market without being able to find a really good American cheese made in the ordinary mode, and have been compelled to purchase a rather poor imitation of English cheese or pay a big price for a "pique apple cheese," made very much in the shape of a wooden nutmeg. Nearly all the good cheese made in this country now, is sent abroad, and the poor remains at home, because foreigners know better than to purchase it. As to bacon, we buy it as we would a ticket in the lottery—about six fears to one hope. Most of the bacon is salted higher than ever Lot's wife was, and a great deal of the salt has "lost its savor" at that. Occasionally we get hold of good leg of bacon properly cured, and we thank our lucky stars for it. It costs no more to cure it properly than improperly—why don't you all do it! [Boston Mail.]

A WORD ABOUT JERSEY COWS.

MR. EDITOR:—On Saturday last, in company with the trustees of the Massachusetts Society for Promotion of Agriculture, I visited the residence of Mr. C. G. Loring of Beverly.

My attention was particularly arrested by two animals, owned by Mr. Loring, of the Jersey breed—first a cow four years old, and a heifer, the offspring of this cow, one year old.

The cow is a beautiful animal, above the medium size, as gentle as a kitten. I was informed by Mr. Loring that she yields more than two pounds of butter a day. The cream from this cow is almost butter itself. That which had stood twenty-four hours was so near like butter that it could be cut with a knife, and would not run from the pitcher. It was yellow, and of the purest quality. The feed of this animal is grass of the pasture, and not exceeding two quarts of meal or grain daily. The heifer is of large size, and one of the most beautiful animals I ever saw. The milking qualities remain to be proved.

I am thus particular in speaking of these animals, because the idea is abroad, that notwithstanding the milk of a superior quality is obtained from these Jersey animals, that the quantity is usually small, and the appearance of the animals inferior. My impressions of the superiority of the milking qualities of these Jersey animals have heretofore been favorable, but never so much so as upon the inspection of Mr. Loring's cattle. If any one is anxious for information on the subject, let him call on Mr. Loring, and he will be glad to give it. Without any pretension to superiority of knowledge, I have rarely found a gentleman whose observations were more indicative of good sense and keen discrimination. P. [Journal of Agriculture.]

POISONED WITH STRYCHNINE.

MR. SEAVEY:—Early in the spring, about five gun caps full of strychnine was mixed with lard and rubbed upon a piece of refuse meat, and left for a short distance from the barn for the purpose of killing foxes. A valuable cow, belonging to a friend of mine, lapped the meat with her tongue and probably took all the poison into her stomach. It was not very long in its operation; for in less than fifteen minutes from the time she left the yard, she returned in the most awful plight. All the symptoms that usually attend cases of poisoning, except prostration, were manifested, and we did not waste much time in speculating as to where she might have got the poison, but immediately gave her one quart of very strong cider vinegar, about three quarts of salt water, as strong as salt would make it, and in about thirty minutes more we gave a dose of strong thoroughwort tea. It was not long after these medicines were administered that she began to recover, and one week had not elapsed before she was, apparently, as well as before.

Others are at liberty to think as they may of the medical qualities of salt and vinegar; but I must be allowed to believe that if they had not been given in this case, my friend's cow would not have lived, and if a similar case should occur I should use the same simple remedy. [Farmer and Artisan.]

LAYING DOWN GROUNDS.

There is no better time than August to plow and lay down old grass land, or to reclaim swamps and meadows. It requires but a single year to change the most incorrigible land into a productive field, if too much is not undertaken at once, and the right process is adopted. The work is usually attempted with plows too light and teams too weak. In trying to gain a sufficient depth, one gets broken and the other tired, and then comes the contest of doubts whether it will ever pay to reclaim an old meadow or plow deep and subsoil the upland. Well, this is just as the mason operators, who build a thin, cheap wall, and find it tumbling down upon himself, perhaps, before he is fortunate enough to get away from it; or the farmer, who erects a cheap house, and in the course of a twelve-month goes to patching and altering, and subjects himself to an expense much greater than it would have been to do the work thoroughly at first. No. In reclaiming lands, the first care should be to put in plows and teams strong enough to turn a furrow ten or twelve inches deep and cut all small roots, without straining either team or plow. There is no wear and tear of spirit in this, and your good nature will hold out until the last furrow is turned in such an operation. It is cheaper, too, than to haggle with it, fret the team, spoil the furrow, and find the work at length only half done!

When the land is properly plowed, roll it with a heavy roller, spread fine manure freely, and then follow with a light, sharp-toothed harrow, drawn by horses, and urge them to a lively walk. This operation will cut an immense number of roots, and bring the surface into a fine, deep till, altogether unlike that effected by a heavy harrow dragged along at a snail's pace by oxen.

There is one point in laying down grounds of sufficient importance to merit a separate paragraph—and that is the quality of the manure applied. The smaller the seeds to be sowed the finer should be the manure. It ought to be old, thoroughly decomposed and pulverized; and where such is freely applied and incorporated with the delicate till made by the quickly-moved and sharp-toothed harrow, little complaint will ever be heard of grass being winter-killed. In a soil thus prepared, the minute seeds find all things necessary for a quick and healthy germination and rapid growth. The air, light, heat and moisture are admitted in such proportions as the seeds require to give them a sure and early start. Thus by deep plowing, fine manure and thorough cultivation, little or no loss is sustained in seed, while a good crop is quite certain, let the succeeding season be either wet or dry.

Land in corn may be laid down by sowing the seed at the last hoeing and covering it with the hoe or hand rake. We have laid down land in this way with excellent results.

REMARKS. This month is the suitable time for budding apples, pears, peaches, plums, apricots, &c. High and clean cultivation is as necessary in the nursery as anywhere else. The process of budding is familiar to most persons, and has been fully described in our former volumes. It is simple and easy, and all the boys on the farm should practice it. Select the best kinds of fruit. [New England Farmer.]

FARM WORK FOR AUGUST.

RYE. From the middle of this month to the middle of September, is the best time for sowing winter rye. If you have land of a gravelly, sandy nature, you can sow it with rye and obtain a profitable crop. But don't "rye it to death." Some men think they can take from soil, and return nothing to it with impunity. But it is not so, as "blowing sand" in many such fields, abundantly proves. Sow early as a general rule. Upon "burnt ground," however, you can continue sowing till cold weather sets in. On old ground, however, sow early, particularly if the soil be poor. The later you sow, the more seed you must use, and so if the soil be poor. Rich soil requires less seed, as the richness of the soil forces more branches from the seed. If you sow early, thirty-two or forty quarts per acre are about the quantity, but if late, or for spring sowing, from forty to sixty quarts are necessary. If you sow early, the rye will spring up and afford good fall feed for sheep, and with this advantage, aside from the food, cropping the stocks produces strong, well set roots, capable of withstanding the frost of the fall and the spring,—in other words, it will prevent their being winter killed, such killing being done by the frosts of fall and spring, and not in winter, when the roots are perfectly protected by the snow.

Every farmer, who pays proper attention to the health of his family, will raise rye. Wheat flour bread causes one of the dyspepsias of the country. Rye flour bread is more healthy, and rye and Indian bread is more healthy still. Our forefathers, who raised more rye and less wheat upon their burnt and new grounds, and who greeted as a luxury, the rye "hannock" of the morning, and flanked the large brown loaf and "pot of baked beans" in the commodious oven, with rye and Indian "drop cakes," never experienced sleepless nights, or poor appetites. Follow their diet and you will have their health and strength. [Farmer's Monthly Visitor.]

A NEW MODE OF FENCE BUILDING.

EDITORS OF CULTIVATOR:—Being desirous to add my mite for the benefit of my brother farmers, I describe my mode of fence building. In the first place I set a good post, seven feet four inches in length, two feet four inches into the ground, leaving five feet above ground. I then drive a stake beside the post, at sufficient distance to admit a rail, then lay in two rails. I now twist a wire firmly around the post and stake, then put in two more rails, then another wire, completing the fence with two additional rails, making six in all. I take the precaution to sharpen my posts as they take their places more readily when thrown by the frost. I have had this fence standing on my farm for four years, and it proves to be cheap and substantial. My neighbors have also tried it, and found it in all respects satisfactory. A. BAILEY. [Albany Cultivator.]

A SIMPLE WAY TO PACK EGGS.

Seeing frequently in our markets the great trouble many persons go to in packing eggs to bring them up, simply in a basket packed in soft hay closely up to the handle. I have tried this frequently and found it to answer just as well as any other way. Germantown Telegraph.

MODE OF PRESERVING ANIMAL AND VEGETABLE SUBSTANCES.

This consists in impregnating, saturating, or coating the substance to be preserved with a weak solution of arsenic, alone, or combined with other materials. The solution is obtained by boiling an arsenious acid in water until it is dissolved, and the fluid becomes clear and transparent. The proportion of arsenic to water is one pound to 40 gallons; and care should be taken not to allow the fluid to touch the sides of the boiler whose water, which would cause the arsenic to sublime, and act injuriously on the health of the makers or workmen. The quantity of water evaporated should be replaced by the same quantity of fresh water, in order that the relative proportions above mentioned may be maintained. Or a concentrated solution may be formed by dissolving one pound of arsenic in 5 gallons of water, which can be preserved for any length of time in wooden vessels until required for use, when every 5 gallons must be diluted with 35 gallons of water. The article may either be immersed in or washed over with the solution, and then dried, whereby it will acquire a thin coating of arsenic, which will be impenetrable to the senses, but a sufficient preservation against the ravages of insects, worms, decay and fire. Or it may be impregnated with the solution by exhaustion or pressure. When the solution is required to dry quickly, 6 pounds of alum to 1 pound of arsenic are dissolved in it. To preserve timber from fire, it is to be impregnated with a solution of 1 pound of arsenic, 6 pounds of alum, and 10 pounds of potash, in 40 gallons of water. To preserve timber immersed in water from decay and the ravages of the worm, it is to be painted over with the solution mixed with oil or any suitable tarry matter.

[Farmer and Mechanic.]

PLOUGHING AND SEEDING.

I wish you would encourage our agriculturists always to seed their grounds as fast as they plough. The amazing advantages will at once be apparent to the reflecting farmer. To those who will not think on the subject enough to see its importance, I recommend to "try a patch."

It is lamentable to see so many farmers ploughing for a week, and then when the whole field is done, and the weeds and grass seed pretty well germinated, begin to put in their crop.

The moisture and mellowness of the earth, when first turned, create immediate vegetation; delay loses this to the crop, and gives the advantage to the weeds and grass that are in the soil. Only look at it!

AGRICOLA.

The above is from the Ohio Cultivator.—Farmers are not so likely here, as there, to have a field that will occupy one week in ploughing. We

